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"Do Tax Reforms Affect Investment?" (with J.G. Cummins and K.A. Hassett), in J.M. Poterba, ed., *Tax Policy and the Economy*, vol. 9, Cambridge: MIT Press, 1995.

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GRANTS RECEIVED

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"Efficient Contracting and Market Power: Evidence from the U.S. Natural Gas Market," Transportation Center, Northwestern University, Summer 1985.

"Constructing a Panel Data Base for Studies of U.S. Manufacturing," University Research Grants Committee, Northwestern University, 1985-1986.

"Economic Analysis of Multiple-Price Systems: Theory and Application," National Science Foundation (Regulatory Analysis and Policy Group, SES-8408805), 1984-1985.

"Contracting and Price Adjustment in Product Markets," University Research Grants Committee, Northwestern University, 1983-1984.

PAPERS PRESENTED

University Seminars

Bard College, Carleton, University of Chicago, Columbia, Emory, George Washington, Harvard, Illinois, Indiana, Johns Hopkins, Laval, University College (London), University of Kentucky, London School of Economics, MIT, University of Maryland, Miami University, University of Michigan, University of Minnesota, New York University, Northwestern, University of Pennsylvania, Princeton, University of Rochester, Stanford, University of Texas, University of Virginia, University of Wisconsin, and Yale.

Conference Papers Presented

American Council for Capital Formation, Washington, DC, June 1994.

American Economic Association, New Orleans, January 1997; San Francisco, January 1996; Washington, D.C., January 1995; Boston, January 1994; Anaheim, January 1993; Washington D.C., December 1990; Atlanta, December 1989; New York, December 1988; Chicago, December 1987; New Orleans, December 1985; Dallas, December 1984.

American Enterprise Institute, Conference Series on Fundamental Tax Reform, 1995-1997; Conference on Distributional Analysis of Tax Policies, Washington, D.C., December 1993.

Association of Environmental and Resource Economists, Dallas, December 1984; San Francisco, December 1983.

Association of Public Policy Analysis and Management, New Orleans, October 1984; Philadelphia, October 1983.

Bipartisan Commission on Entitlement and Tax Reform, Washington, DC, June 1994.

Brookings Panel on Economic Activity, September 1994, April 1988, September 1987, September 1986, April 1986, September 1985.

Centre for Economic Policy Research Conference on Capital Taxation and European Integration, London, September 1989.

Conference on International Perspectives on the Macroeconomic and Microeconomic Implications of Financing Constraints, Centre for Economic Policy Research, Bergamo, Italy, October 1994.

Eastern Economic Association, Boston, March 1988; Boston, February 1983.

Econometric Society, New Orleans, January 1997; San Francisco, January 1996; Washington, D.C., January 1995; New Orleans, January 1992; Washington, December 1990; Atlanta, December 1989; New York, December 1988; Chicago, December 1987; New Orleans, December 1986; New York, December 1985; Boston, August 1985; Madrid, September 1984; San Francisco, December 1983; Pisa, August 1983.

Energy Modeling Forum, Stanford University, August 1983; February 1983; August 1982.

Federal Reserve Bank of Boston, Annual Economic Conference, North Falmouth, Massachusetts, June 1995.

Federal Reserve Bank of Kansas City Symposium on "Financial Market Volatility--Causes, Consequences, and Policy Responses," Jackson Hole, Wyoming, August 1988.

Federal Reserve Bank of St. Louis, Conference on Economic Policy, St. Louis, October 1994.

Hoover Institution, Conference on Fundamental Tax Reform, December 1995.

The Institute of Gas Technology, Washington, DC, May 1982.

The Institute of Management Science/Operations Research Society of America, Orlando, November 1983; Chicago, April 1983.

International Association of Energy Economists, Boston, November 1986; Philadelphia, December 1985; Bonn, June 1985; San Francisco, November 1984; Washington, DC, June 1983; Denver, November 1982; Cambridge (England), June 1982; Houston, November 1981.

International Conference on the Life Cycle Model, Paris, June 1986.

International Institute of Public Finance, Innsbruck, August 1984.

National Academy of Science, February 1997.

National Association of Business Economists, Boston, September 1996; Dallas, September 1992; New Orleans, October 1987.

National Bureau of Economic Research - IMEMO Conference on the American Economy, Moscow, August 1989.

National Bureau of Economic Research Summer Institute, July 1995; July 1994; July 1993; August 1992; July-August 1991; July-August 1990; July-August 1989; July-August 1988; July-August 1987; July-August 1986; July 1985; July 1984; July 1983.

National Bureau of Economic Research Conference on Asymmetric Information, Corporate Finance, and Investment, Cambridge, May 1989.

National Bureau of Economic Research Conference on Financial Crises, Key Biscayne, March 1990.

National Bureau of Economic Research Conference on Government Expenditure Programs, Cambridge, November 1986.

National Bureau of Economic Research Conference on International Taxation, Washington, DC, April 1994; Cambridge, January 1994; New York, September 1991; Nassau, Bahamas, February 1989.

National Bureau of Economic Research Conference on Macroeconomics and Industrial Organization, Cambridge, July 1988; Cambridge, July 1987; Cambridge, July 1986; Chicago, November 1985.

National Bureau of Economic Research Conference on Pensions, Baltimore, March 1985; San Diego, April 1984.

National Bureau of Economic Research Conference on Productivity, March 1988; March 1987.

National Bureau of Economic Research Conference on Public Economics, Cambridge, April 1994, April 1993, November 1991, April 1991, March 1988, November 1987, March 1987.

National Bureau of Economic Research Conference on Tax Policy and the Economy, Washington, DC, November 1996, November 1994, November 1991, November 1989.

National Bureau of Economic Research Trans-Atlantic Public Economics Seminar, Turin, May 1994.

National Tax Association/Tax Institute of America, Arlington, May 1992; Seattle, October 1983.

U.S. House of Representatives, Committee on Ways and Means, Washington, DC, June 1996, July 1992.

U.S. Senate Committee on Finance, Washington, DC, February 1997, January 1995, January 1992, December 1981.

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EDUCATION

Ph.D., Economics, Stanford University, 1992.

M.B.A., with distinction, The Wharton School, University of Pennsylvania, 1984.

M.S.E., Chemical Engineering, University of Pennsylvania, 1984.

B.S., Chemical Engineering, *cum laude*, University of Pennsylvania, 1979.

B.A., European History, *magna cum laude*, University of Pennsylvania, 1979.

Academic Honors: Graduate Student Research Award, Telecommunications Policy Research Conference, 1991; Lynde and Harry Bradley Foundation Fellowship, 1990; Stanford Fellowship, 1987

PROFESSIONAL EXPERIENCE

Graduate School of Business, Columbia University (New York, NY), Assistant Professor of Finance and Economics, July 1991 to present.

RAND Corporation (Santa Monica, CA), Graduate Student Intern, Summer 1990.

Economic Analysis Group, Ltd. (Washington, DC), Senior Consultant, 1986-1987.

"Baghdad 2000" Master Development Plan (Baghdad, Iraq), Economist and Systems Analyst, 1985-1986.

M.C.I. Telecommunications (Washington, DC), Manager of Financial Analysis, 1985; Senior Financial Analyst, 1984.

Office of Management and Budget, National Security Division (Washington, DC), Graduate Student Intern, Summer 1983.

Putnam, Hayes and Bartlett (Cambridge, MA), Research Associate 1980-1982.

TEACHING EXPERIENCE

Economics and Strategy in Media Industries, 1993-1995

Economics of Strategic Management, 1993

Managerial Economics, 1991-1995

Theory of the Firm (teaching assistant for Paul Milgrom), 1989

PAPERS and PUBLICATIONS

"Computer Use and Productivity Growth in Federal Government Agencies, 1987 to 1992", with Frank Lichtenberg, National Bureau of Economic Research, Working Paper #5616, June 1996.

"The Political Economy of Congestion Charges in Packet Networks", with Martin Weiss, forthcoming in Telecommunications Policy.

"Compatibility Standards and Interoperability: Lessons from the Internet", in Standards Policy for Information Infrastructure, edited by B. Kahin and J. Abbate, Harvard Information Infrastructure Project, Cambridge MA: MIT Press, 1995.

Quality and Reliability of Telecommunication Infrastructure (editor), Hillsdale, NJ: Lawrence Erlbaum Associates, 1995.

"The Quality of Complex Systems and Industry Structure", with Nicholas Economides, in Quality and Reliability of Telecommunication Infrastructure, edited by William Lehr, Hillsdale, NJ: Lawrence Erlbaum Associates, 1995.

"Compatibility Standards and Industry Competition: Two Case Studies", Economics of Innovation and New Technology.

"Quality Choices in a Network of Networks", forthcoming in *Private Networks and Public Objectives* (Eli Noam, editor), Columbia University.

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"Compatibility Standards and the Internet", working paper, September 1992,

"Standardization: Understanding the Process", Journal of the American Society for Information Science, vol 43, no 8 (September 1992) 550-555.

"Voluntary Standard Setting, Institutions and the Allocation of Technical Capabilities", working paper, July 1992.

"ISDN and the Small User: Regulatory Policy Issues", with Roger Noll, in Integrated Broadband Networks: the Public Policy Issues, edited by Martin Elton, North-Holland, New York, 1991, 147-178.

"Incremental Costs and the Efficient Pricing of Local Exchange Services: A Synopsis of the Incremental Cost Conference", Center for Economic Policy Research Working Paper #175, Stanford University, January 1990.

"Vertical Integration in the Cable Television Industry: the Issue of Content/Carrier

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"ISDN: an Economists' Primer to a New Telecommunications Technology", working paper, February 1989.

WORK in PROGRESS

"Economics of Anticipatory Standard Setting", working draft, presented at the European Association of Research in Industrial Economics (E.A.R.I.E.) Conference, Chania, Crete, September 1994.

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AT&T EXHIBIT H

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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the matter of)	
)	
Application by SBC Communications, Inc.)	
for Authorization Under Section 271 of the)	CC Docket
Communications Act to Provide In-Region)	No. 97-121
InterLATA Service in the State of Oklahoma)	
)	

**AFFIDAVIT OF DANIEL P. KEATING, III
ON BEHALF OF AT&T CORP.**

I. INTRODUCTION AND QUALIFICATIONS

1. My name is Daniel C. Keating, III. My business address is 5501 LBJ Freeway, Suite 1045, Dallas, Texas. During the period of time when AT&T was negotiating with Southwestern Bell Telephone Company ("SWBT") under Sections 251 and 252 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996 (the "Act"), I was employed by AT&T in the Local Infrastructure and Access Management organization as a Local Outside Plant Engineering and Construction District Manager. In that position, I was responsible for planning, designing, and constructing AT&T's outside plant facility network for local telecommunications service in the states of Texas, Oklahoma, Missouri, Arkansas and Kansas, which together comprise the Southwest Region.

2. I received a Bachelors of Science Degree from Rensselaer Polytechnic Institute in 1983. I have also attended Executive Education mini-MBA programs at Boston University and the University of Virginia.

3. Following summer employment as a lineman for Southern New England Telephone (SNET), I was hired by SNET's outside plant Construction Methods Organization in 1983. In that capacity, I was responsible for outside plant product approvals, vendor selection, and the development of standard practices and procedures for the construction of SNET's outside plant network. In 1984, I became SNET's Outside Plant Planning Engineer for the Manchester, Connecticut area. In 1985, I joined AT&T as an Account Executive - Outside Plant Products. From there I became Sales Staff Manager - Transmission and Outside Plant Products for the NYNEX, Bell Atlantic, BellSouth, SNET, and Ameritech accounts until 1991, when I held the position of Account Executive - Transmission and Outside Plant Products. In 1994, I assumed the position of Offer Manager - Consumer Broadband Networks at AT&T. After transferring from the division of AT&T that has since become Lucent, I headed the design plans for AT&T's outside plant local infrastructure for the states in the Southwest Region. My title was Manager - Rights-of-Way, Route Planning, and Franchising. In 1996, I was appointed to the position of District Manager - Local Outside Plant Engineering and Construction.

4. From May 1996 to the present, I have led AT&T's negotiations with SWBT seeking to obtain nondiscriminatory access to poles, ducts, conduits, and rights-of-way in the Southwest Region, including Oklahoma. I also served as AT&T's witness on the subject of outside plant in arbitration proceedings in each of the five states in SWBT's territory.

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AFFIDAVIT OF DANIEL C. KEATING, III

II. PURPOSE AND SUMMARY OF AFFIDAVIT

5. SWBT contends that it has satisfied its statutory checklist obligations to provide nondiscriminatory access to the poles, ducts, conduits, and rights-of-way that it owns or controls, at rates that are just and reasonable, and in a manner that complies with Section 224 of the Act. (SWBT, Brief in Support of Application, CC Docket No. 97-121 at 28-30 (April 11, 1997) ("SWBT Brief").) The purpose of this affidavit is to demonstrate that none of the documents that SWBT relies to show that it has complied with the Act -- its Statement of Terms and Conditions, also known as a Statement of Generally Available Terms ("SGAT"), and its interconnection agreements with Brooks Fiber Communications ("Brooks Fiber") and ICG Telecom Group, Inc. ("ICG") -- support that contention. I will also show that SWBT's actions do not give any confidence that it will implement vague promises of nondiscriminatory treatment in accordance with the requirements of the Act. The fact is that SWBT has not satisfied its statutory checklist obligations in this important area.

6. Specifically, SWBT's interconnection agreements with Brooks Fiber and ICG do not set forth the terms pursuant to which SWBT will grant access to its outside plant structures. Rather, those agreements contain only one-sentence promises by SWBT that it will provide nondiscriminatory access if such access is requested. Furthermore, the portion of SWBT's SGAT that relates to poles, ducts, conduits and rights-of-way, entitled "Master Agreement for Access to Poles, Ducts, Conduits and Rights-of Way" ("Master Agreement"), is discriminatory because it: (1) fails to provide parity access to information regarding SWBT's poles, ducts, conduits and rights-of-way, (2) fails to establish procedures

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and practices which would enable competitive local exchange carriers ("CLECs") to utilize SWBT's poles, ducts, conduits and rights-of-way with the same freedom of judgment SWBT affords itself, (3) inappropriately conditions a CLEC's rights to undertake make-ready work, (4) gives SWBT unfettered discretion to convey, transfer or abandon poles, ducts, conduits and rights-of-way regardless of CLECs' needs, and (5) fails to provide specific performance guarantees concerning access to SWBT's poles, ducts, conduits and rights-of-way. The Master Agreement also fails to provide access to SWBT's poles, ducts, conduits and rights-of-way at just and reasonable rates because it: (1) assesses fees for periods when access is neither requested nor provided, (2) unilaterally imposes pre-license survey and supervision costs on CLECs even when they have not requested such surveys or supervision, and (3) requires the prepayment of fees for make-ready work. Finally, SWBT fails to comply with the Act because the collocation portion of its SGAT prohibits CLECs from installing their cables in SWBT's central office building entrance conduits.

III. THE COMPETITIVE CHECKLIST REQUIREMENTS FOR ACCESS TO POLES, DUCTS, CONDUITS AND RIGHTS-OF-WAY.

7. As a prerequisite to relief under Section 271, the Act requires SWBT to provide access to its poles, ducts, conduits and rights-of-way that is: (1) "nondiscriminatory"; (2) at "just and reasonable rates"; and (3) in compliance with § 224 of the Act. 47 U.S.C. § 271 (c)(2)(B)(iii). Section 224, in turn, sets out the requirements regarding the bounds of "just and reasonable" within which SWBT is obligated to negotiate for attachment rates

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(including, for example, the apportionment of costs among all carriers using a pole), and reiterates the requirement that access to SWBT's poles, ducts, conduits, and rights-of-way must be provided on a "nondiscriminatory" basis. See 47 U.S.C. § 224(f)(1).

8. In its First Report & Order in CC Docket No. 96-98 ("Local Competition Order"), the Commission construed the nondiscrimination provisions of the Act to require an incumbent local exchange carrier ("ILEC") to provide access and unbundled network elements ("UNEs") that are "at least equal in quality" to that which the ILEC provides to itself. Local Competition Order ¶ 312. The Commission specifically applied this touchstone of nondiscrimination under the Act -- treatment of CLECs as an ILEC treats itself -- to the rates, terms, and conditions of access to poles, ducts, conduits and rights-of-way. Local Competition Order ¶ 1156 and n.832. Additionally, the Commission has stated that:

no party can use its control of the enumerated facilities and property to impede, inadvertently or otherwise, the installation and maintenance of telecommunications and cable equipment by those seeking to compete in those fields. Section 224(f)(1) appears to mandate access every time a telecommunications carrier or cable operator seeks access to the utility facilities or property identified in that section, with a limited exception allowing electric utilities to deny access "where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes."

Id. ¶ 1123.

9. Under the foregoing standard, SWBT is entitled to own and manage its assets, but it must afford competitors such as AT&T the same freedom to apply sound engineering judgments regarding the installation of cable that SWBT itself enjoys. The

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competitors, by the same token, must commit to abide by the same engineering criteria that SWBT applies to itself.

IV. SWBT HAS NOT COMPLIED WITH THE REQUIREMENTS OF THE COMPETITIVE CHECKLIST.

10. To the best of my knowledge, SWBT is not currently providing access to its poles, ducts, conduits and/or rights-of way to any CLEC under the Act in any meaningful way. That means that there are no real-world experiences which even suggest that access to SWBT's outside plant structures will be available on terms that comply with the Act.

11. SWBT relies on its SGAT and its interconnection agreements with Brooks Fiber and ICG to support its claim that it has complied with its checklist obligation to provide nondiscriminatory access to poles, ducts, conduits, and rights-of-way. (See SWBT Brief at 28-30.) None of these documents, nor SWBT's actions, establish its compliance.

12. Brooks Fiber's and ICG's interconnection agreements do not establish checklist compliance. Both of those agreements contain only conclusory, one-sentence provisions with respect to access to SWBT's poles, duct, conduits and rights-of way.¹

¹ Brooks Fiber's agreement with SWBT states in its entirety that "[u]pon request, the Parties shall provide non-discriminatory access to the poles, ducts, conduits and rights-of way they own or control. If a request is made, the Parties will negotiate a stand alone agreement to provide for it." (Interconnection Agreement between Brooks Fiber and SWBT at ¶ VII.)

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Moreover, in both of those agreements, SWBT merely promises to provide access to its poles, ducts, conduits and rights-of-way if requested. To the best of my knowledge, as of the date SWBT filed its application with the Commission for authorization to provide interLATA service, neither Brooks Fiber nor ICG had requested access to SWBT's poles, ducts, conduits and rights of way under the Act.

13. Even assuming that the SGAT were relevant to SWBT's eligibility for authorization to provide interLATA services originating in Oklahoma, the provisions of the Master Agreement incorporated therein to govern access to poles, ducts, conduits and rights-of-way do not comply with the Act. It grants to SWBT unfettered discretion with respect to the process by which a CLEC obtains access and use of outside plant structures, and creates vast opportunities for SWBT to delay, impede and restrict CLECs at every turn.

¹(...continued)

ICG's agreement with SWBT states in its entirety that "[e]ach Party shall provide the other Party access to the poles, ducts, rights-of-way and conduits it owns or controls at reciprocal rates, terms and conditions; provided that such rates, terms and conditions (1) shall be at least as favorable as those contained in any SWBT's [sic] pole attachment agreement and (ii) are consistent with Section 224 of the Act." (Interconnection Agreement between ICG and SWBT at ¶ 16.0.)

SWBT does not explicitly rely on the Sprint interconnection agreement with respect to this subject. That agreement merely states that "Rights-of-way, and Conduit and Pole attachments will be provided under nondiscriminatory terms and conditions at the time of Sprint's request." (Interconnection Agreement between Sprint Communications Company L.P. and SWBT, attachment 13, § 3.1.)

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A. **The Master Agreement Does Not Provide for Nondiscriminatory Access to SWBT's Poles, Ducts, Conduits and Rights-of-way.**

14. The position SWBT has taken during its negotiations with AT&T effectively neutralizes the Act's requirement of nondiscrimination in several key areas. SWBT has maintained that the nondiscrimination provisions of the Act merely prohibit discrimination between requesting carriers. In other words, it denies that nondiscrimination requires equal treatment of CLECs with itself. Indeed, SWBT refused to include in the "Purpose" portion of the poles/conduits section of the Oklahoma interconnection agreement the phrase "nondiscriminatory access." SWBT's Master Agreement incorporated into its SGAT for Oklahoma also omits the language providing that access will be provided on a "nondiscriminatory" basis. Arbitration decisions in Kansas however, do require such language. Further, the terms and conditions of the Master Agreement do not come close to ensuring that requesting carriers receive the nondiscriminatory treatment required by the Act. To the contrary, many of its provisions are discriminatory on their face, create a significant opportunity for discrimination and are otherwise unlawful under the Act and the Commission's Rules.

1. **The Master Agreement Fails To Provide Parity Access To Information Regarding SWBT's Poles, Ducts, Conduits and Rights-Of-Way.**

15. The Local Competition Order requires SWBT and other ILECs to make "maps, plats, and other relevant data" available to other carriers seeking access to their property or facilities. Local Competition Order ¶ 1223. Without such data, other carriers